

### **Amendments to the Claims:**

Please cancel existing claims 1-15. This listing of claims will replace all prior versions and listing of claims in the application:

### **Listing of Claims:**

Claims 1 – 15 (canceled)

16. (Original) System for controlling exhaust emissions produced by an internal combustion engine, the system comprising:

means for determining a first operating parameter of an internal combustion engine and producing a first operating parameter value corresponding thereto;

a first auxiliary emission control device (AECD) producing a first emission level as a function of at least said first operating parameter value; and

a control computer determining a maximum allowable emission level as a function of said first emission level and a reference emission level, said computer controlling an air handling system of said engine as a function of said maximum allowable emission level such that exhaust emissions produced by said engine are limited to said maximum allowable emission level.

17. (Original) The system of claim 16 further including:  
means for determining a second operating parameter of said engine different from said first operating parameter and producing a second operating parameter value corresponding thereto; and

a second AECD producing a second emission level as a function of at least either of said first and second operating parameter values;

wherein said control computer is operable to determine said maximum allowable emission level as a function of said first, second and reference emissions levels.

18. (Original) The system of claim 17 wherein said control computer includes means for determining said maximum allowable emission level as a maximum one of said reference emission level, said first emission level and said second emission level.

19. (Original) System for controlling exhaust emissions produced by an internal combustion engine, the system comprising:

a plurality of means for determining a corresponding plurality of different operating parameters of an internal combustion engine and producing a corresponding plurality of operating parameter values corresponding thereto;

a number of auxiliary emission control devices (AECDs) each producing an independent emission level as a function of at least one of any of said plurality of operating parameter values; and

a control computer determining a maximum allowable emission level as a maximum one of a reference emission level and each of said emission levels produced by said number of AECDs, said computer controlling an air handling system of said engine as a function of said maximum allowable emission level such that exhaust emissions produced by said engine are limited to said maximum allowable emission level.

20. (Original) The system of claim 19 further including:

an engine speed sensor producing an engine speed signal indicative of rotational speed of said engine;

means for determining an output torque produced by said engine and producing a torque value corresponding thereto; and

a memory coupled to said control computer;

wherein said control computer is operable to determine an enable value as a function of said engine speed signal and said torque value, said control computer storing in said memory a rolling average of said maximum allowable emission level over a predefined time interval when said enable value is active.

21. (Original) The system of claim 20 wherein said control computer is operable to produce an active enable value when said engine speed signal is greater than an engine speed threshold and said torque value is greater than a torque threshold, said control computer otherwise producing an inactive enable value.

22. (Original) The system of claim 20 further including means for determining an NOx value indicative of NOx content of exhaust gas produced by said engine;

and wherein said control computer is operable to store in said memory a rolling average of said NOx value over said predefined time interval when said enable value is active.

23. (Original) A method of controlling exhaust emissions produced by an internal combustion engine, the method comprising:

determining a plurality of operating parameters each corresponding to a different operating condition of an internal combustion engine;

determining a number of emission levels each corresponding to a different auxiliary emission control device (AECD) and each as a function of at least one of any of said plurality of operating parameters;

determining a maximum allowable emission level as a maximum one of a reference emission level and said number of emission levels; and

controlling an air handling system of said engine as a function of said maximum allowable emission level such that exhaust emissions produced by said engine are limited to said maximum allowable emission level.

24. (Original) System for controlling exhaust emissions produced by an internal combustion engine, the system comprising:

means for determining a first operating parameter of an internal combustion engine and producing a first operating parameter value corresponding thereto;

a first auxiliary emission control device (AECD) producing a first state value indicative of a first operating condition of said engine as a function of at least said first operating parameter value; and

a control computer controlling exhaust emissions produced by said engine by controlling an air handling system of said engine as a function of said first state value.

25. (Original) System for controlling exhaust emissions produced by an internal combustion engine, the system comprising:

a plurality of means for determining a corresponding plurality of different operating parameters of an internal combustion engine and producing a corresponding plurality of operating parameter values corresponding thereto;

a number of auxiliary emission control devices (AECDs) producing a corresponding number of independent state values each as a function of at least one of any of said plurality of operating parameter values; and

a control computer controlling exhaust emissions produced by said engine by controlling an air handling system of said engine as a function of said number of state values.

26. (Original) A method of controlling exhaust emissions produced by an internal combustion engine, the method comprising:

determining a plurality of operating parameters each corresponding to a different operating condition of an internal combustion engine;

determining a number of state values each corresponding to a different auxiliary emission control device (AECD) and each as a function of at least one of any of said plurality of operating parameters; and

controlling exhaust emissions produced by said engine by controlling an air handling system of said engine as a function of said first state value.